

CLAIMS

I claim:

1. A passenger conveyor system (20), comprising:
 - a plurality of steps (22) that are moveable along a step loop having a passenger side and a return side;
 - a step chain (32) associated with the steps and that is moveable along a chain loop (30) having a first side (50) corresponding to the passenger side of the step loop and a second side (52) corresponding to the return side of the step loop;
 - at least one drive module (40) having a motor (42) and a drive member (46) that engages the step chain only on one of the first side or the second side of the chain loop to cause selective movement of the chain and the steps.
2. The system of claim 1, including a second drive module having a motor and a drive member that engages the step chain on both sides (50, 52) of the chain loop (30).
3. The system of claim 1, including a synchronizing module (60, 60') having a synchronizing member (62) that engages the step chain on both sides of the chain loop (30).
4. The system of claim 3, including a second drive module having a motor and a drive member that engages the step chain only on the first side of the chain loop.

20

5. The system of claim 1, wherein the at least one drive module engages only the first side of the chain loop and wherein the first side corresponds to a passenger side of the loop.

5

6. The system of claim 1, wherein the at least one drive module includes a drive sheave that moves the drive member responsive to the motor and the sheave has an outside dimension that leaves spacing between the step chain loop second side and the drive member.

10

7. The system of claim 1, wherein the drive member comprises a drive belt (46).

8. The system of claim 7, wherein the belt comprises load-bearing cords (47) imbedded in a urethane material (49).

15

9. The system of claim 1, including a truss structure (28) comprising a first material and wherein the step chain links (32) comprise a second material.

20

10. The system of claim 6, including a second drive module including a drive member (46) that engages the step chain on both sides (50, 52) of the chain loop (30).

11. The system of claim 6, including a synchronizing module (60, 60') having a synchronizing member (62) that engages the step chain on both sides of the chain loop.

12. The system of claim 11, including a second drive module including a drive member that engages the step chain only on the first side of the chain loop.

5 13. The system of claim 6, wherein the drive member (46) comprises a non-metallic belt.

14 The system of claim 6 including a truss structure (28) made from a first metal material and wherein the step chain links (32) are made from a second metal material.

15 A method of moving a passenger conveyor step chain along a loop (30) having two sides (50, 52), comprising the steps of:

providing a drive module (40) having a drive member (46) adapted to engage the step chain; and

5 engaging the drive member (46) to only one side (50) of the step chain loop

16 The method of claim 15 including providing a second drive module having a drive member and engaging the second drive member to both sides (50, 52) of the step chain loop

10

17. The method of claim 15, including providing a synchronizing member (62) and engaging the synchronizing member to both sides (50, 52) of the chain loop.

18. The method of claim 15, wherein the engaging step comprises engaging the
15 drive member to only the passenger side of the step chain.